

? **login**

*** It is now 2010/01/07 09:41:04 ***
(Dialog time 2010/01/07 09:41:04)

? **b 155 medicine textile 399**

07jan10 09:42:03 User276629 Session D283.1
\$0.00 0.249 DialUnits File415
\$0.00 Estimated cost File415
\$0.27 INTERNET
\$0.27 Estimated cost this search
\$0.27 Estimated total session cost 0.249 DialUnits

SYSTEM:OS - DIALOG OneSearch

File 155:MEDLINE(R) 1950-2009/Dec 09
(c) format only 2009 Dialog

*File 155: No updates were provided Friday or Saturday, 12/11-12.
Please see HELP NEWS 154 for information.

File 5:Biosis Previews(R) 1926-2010/Jan W1
(c) 2010 The Thomson Corporation

File 34:SciSearch(R) Cited Ref Sci 1990-2009/Dec W4
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File 35:Dissertation Abs Online 1861-2009/Nov
(c) 2009 ProQuest Info&Learning

File 45:EMCare 2010/Jan W1
(c) 2010 Elsevier B.V.

File 65:Inside Conferences 1993-2010/Jan 06
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File 71:ELSEVIER BIOBASE 1994-2010/Jan W1
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have changed.

File 72:EMBASE 1993-2010/Jan 07
(c) 2010 Elsevier B.V.

File 73:EMBASE 1974-2010/Jan 07
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File 91:MANTIS(TM) 1880-2009/Nov
2001 (c) Action Potential

File 98:General Sci Abs 1984-2009/Dec
(c) 2009 The HW Wilson Co.

File 135:NewsRx Weekly Reports 1995-2010/Dec W3
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File 138:Physical Education Index 1990-2009/Jan
(c) 2009 CSA.

File 144:Pascal 1973-2009/Dec W3
(c) 2009 INIST/CNRS

File 149:TGG Health&Wellness DB(SM) 1976-2009/Nov W3
(c) 2009 Gale/Cengage

File 154:MEDLINE(R) 1990-2009/Dec 09
(c) format only 2009 Dialog

*File 154: No updates were provided Friday or Saturday 12/11-12.
Please see HELP NEWS 154 for information.

File 156:ToxFile 1965-2009/Nov W3
(c) format only 2009 Dialog

*File 156: Please see HELP NEWS 156 for information on updating.
 File 159:Cancerlit 1975-2002/Oct
 (c) format only 2002 Dialog
 File 162:Global Health 1983-2010/Jan W1
 (c) 2010 CAB International

*File 162: CABI is not sending a weekly update the week of 27 December.
 File 164:Allied & Complementary Medicine 1984-2009/Dec
 (c) 2009 BLHCIS
 File 172:EMBASE Alert 2010/Jan 07
 (c) 2010 Elsevier B.V.
 File 266:FEDRIP 2009/Nov
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 File 369:New Scientist 1994-2010/Dec W3
 (c) 2010 Reed Business Information Ltd.
 File 370:Science 1996-1999/Jul W3
 (c) 1999 AAAS

*File 370: This file is closed (no updates). Use File 47 for more current information.
 File 399:CA SEARCH(R) 1967-2010/UD=15202
 (c) 2010 American Chemical Society

*File 399: Use is subject to the terms of your user/customer agreement. IPCR/8 classification codes now searchable as IC=. See HELP NEWSIPCR.
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
 (c) 2006 The Thomson Corp
 File 444:New England Journal of Med. 1985-2009/Dec W4
 (c) 2009 Mass. Med. Soc.
 File 457:The Lancet 1992-2009/Dec W4
 (c) 2009 Elsevier Limited.All rights res

*File 457: The file has been reloaded. Accession numbers have changed. URLs are in the records once again.
 File 467:ExtraMED(tm) 2000/Dec
 (c) 2001 Informania Ltd.
 File 8: Ei Compendex(R) 1884-2010/Dec W4
 (c) 2010 Elsevier Eng. Info. Inc.
 File 67:World Textiles 1968-2010/Jan
 (c) 2010 Elsevier B.V.
 File 95:TEME-Technology & Management 1989-2009/Nov W5
 (c) 2009 FIZ TECHNIK
 File 99:Wilson Appl. Sci & Tech Abs 1983-2009/Nov
 (c) 2009 The HW Wilson Co.
 File 240:PAPERCHEM 1967-2010/Dec W3
 (c) 2010 Elsevier Eng. Info. Inc.
 File 248:PIRA 1975-2009/Dec W2
 (c) 2009 Pira International

*File 248: Updates back to UD200906W4 have been reprocessed to synchronize UD's.
 File 293:Engineered Materials Abstracts 1966-2009/Nov
 (c) 2009 CSA.
 File 323:RAPRA Polymer Library 1972-2009/Nov
 (c) 2009 RAPRA Technology Ltd

Set	Items	Description
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? s (keratin)(n30)(hydrogel)

```
104276 KERATIN
104942 HYDROGEL
S1      64 (KERATIN) (N30) (HYDROGEL)
```

? rd

```
S2      30 RD (unique items)
```

? s s2 and py<2003

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Processing
Processing
Processing
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Processing
Processed 10 of 37 files ...
Processing
Processed 20 of 37 files ...
>>>One or more prefixes are unsupported
>>> or undefined in one or more files.
Processing
Processing
Processed 30 of 37 files ...
Completed processing all files
          30 S2
133080271 PY<2003
S3      9 S2 AND PY<2003
```

? t s3/medium/all

Dialog eLink:

USPTO Full Text Retrieval Options

3/3/1 (Item 1 from file: 155)

DIALOG(R)File 155: MEDLINE(R)

(c) format only 2009 Dialog. All rights reserved.

14968833 PMID: 12235746

Testing keratolytic effect of carbamide in various vehicles.

Toskic-Radojicic Marija
Military Medical Academy, Institute for Pharmacy, Belgrade.
Vojnosanitetski pregled. Military-medical and pharmaceutical review (Yugoslavia)
Jul-Aug 2002 , 59 (4) p393-7 , ISSN: 0042-8450--Print **Journal Code:** 21530700R
Publishing Model Print
Document type: In Vitro; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Dialog eLink: [USPTO Full Text Retrieval Options](#)

3/3/2 (Item 1 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)
(c) 2010 The Thomson Corporation. All rights reserved.

17017525 **Biosis No.:** 200200611036

Non-woven keratin cell scaffold

Author: Blanchard Cheryl R; Van Dyke Mark E; Timmons Scott F; Siller-Jackson
Arlene J; Smith Robert A

Journal: Official Gazette of the United States Patent and Trademark Office Patents
1263 (2): Oct. 8, 2002 2002

Medium: e-file

Patent Number: US 6461628 **Patent Date Granted:** October 08, 2002 20021008

Patent Classification: 424-402 **Patent Assignee:** Keraplast Technologies, Ltd. **Patent
Country:** USA

ISSN: 0098-1133

Document Type: Patent

Record Type: Abstract

Language: English

Dialog eLink: [USPTO Full Text Retrieval Options](#)

3/3/3 (Item 2 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)
(c) 2010 The Thomson Corporation. All rights reserved.

16715061 **Biosis No.:** 200200308572

Keratin-based hydrogel for biomedical applications and method of production

Author: Blanchard Cheryl R (Reprint); Timmons Scott F; Smith Robert A

Author Address: Warsaw, IN, USA**USA

Journal: Official Gazette of the United States Patent and Trademark Office Patents
1257 (5): Apr. 30, 2002 2002

Medium: e-file

Patent Number: US 6379690 **Patent Date Granted:** April 30, 2002 20020430 **Patent Classification:** 424-422 **Patent Assignee:** Keraplast Technologies, Ltd., Austin, TX, USA **Patent Country:** USA
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English

Dialog eLink:

USPTO Full Text Retrieval Options

3/3/4 (Item 3 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

(c) 2010 The Thomson Corporation. All rights reserved.

16632214 **Biosis No.:** 200200225725

Water absorbent keratin and gel formed therefrom

Author: Van Dyke Mark E; Blanchard Cheryl R; Timmons Scott F; Siller-Jackson Arlene J; Smith Robert A

Journal: Official Gazette of the United States Patent and Trademark Office Patents 1252 (2): Nov. 13, 2001 2001

Medium: e-file

Patent Number: US 6316598 **Patent Date Granted:** November 13, 2001 20011113

Patent Classification: 530-357 **Patent Assignee:** Keraplast Technologies, Ltd. **Patent Country:** USA

ISSN: 0098-1133

Document Type: Patent

Record Type: Abstract

Language: English

Dialog eLink:

USPTO Full Text Retrieval Options

3/3/5 (Item 4 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

(c) 2010 The Thomson Corporation. All rights reserved.

16309791 **Biosis No.:** 200100481630

Nonwoven sheet and film containing water absorbent keratin

Author: Van Dyke Mark E; Timmons Scott F; Blanchard Cheryl R; Siller-Jackson Arlene J; Smith Robert A

Journal: Official Gazette of the United States Patent and Trademark Office Patents 1249 (2): Aug. 14, 2001 2001

Medium: e-file

Patent Number: US 6274155 **Patent Date Granted:** August 14, 2001 20010814

Patent Classification: 424-402 **Patent Assignee:** Keraplast Technologies, Ltd. **Patent**

Country: USA
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English

Dialog eLink:

USPTO Full Text Retrieval Options

3/3/6 (Item 5 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)
(c) 2010 The Thomson Corporation. All rights reserved.

16284032 **Biosis No.:** 200100455871
Absorbent keratin wound dressing

Author: Van Dyke Mark E; Timmons Scott F; Blanchard Cheryl R; Siller-Jackson Arlene J; Smith Robert A
Journal: Official Gazette of the United States Patent and Trademark Office Patents 1249 (1): Aug. 7, 2001 2001
Medium: e-file
Patent Number: US 6270793 **Patent Date Granted:** August 07, 2001 20010807
Patent Classification: 424-443 **Patent Assignee:** Keraplast Technologies, Ltd. **Patent Country:** USA
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English

Dialog eLink:

USPTO Full Text Retrieval Options

3/3/7 (Item 1 from file: 399)
DIALOG(R)File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rights reserved.

138292670 **CA:** 138(19)292670z **JOURNAL**
Human hair keratins: structural biomolecules for use in biomaterials development
Author: Van Dyke, Mark E.
Location: Materials Engineering Department, Southwest Research Institute, San Antonio , TX, 78238-5166, USA
Journal: Polym. Prepr. (Am. Chem. Soc., Div. Polym. Chem.)
Date: 2002
Volume: 43 **Number:** 2 **Pages:** 701-702
CODEN: ACPPAY
Media Type: computer optical disk
ISSN: 0032-3934

Language: English

Publisher: American Chemical Society, Division of Polymer Chemistry

Dialog eLink: [USPTO Full Text Retrieval Options](#)

3/3/8 (Item 2 from file: 399)

DIALOG(R)File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rights reserved.

137284418 **CA:** 137(19)284418n **PATENT**

Manufacture of nonwoven keratin cell scaffold and its use

Inventor (Author): Blanchard, Cheryl R.; Van Dyke, Mark E.; Timmons, Scott F.; Siller-Jackson, Arlene J.; Smith, Robert A.

Location: USA

Assignee: Keraplast Technologies, Ltd.

Patent: United States ; US 6461628 B1 **Date:** 20021008

Application: US 587157 (20000605) *US 394782 (19990913) *US 512918 (20000225) *US 528893 (20000320)

Pages: 30 pp., Cont.-in-part of U.S. 6,270,793.

CODEN: USXXAM

Language: English

Patent Classifications:

Class: 424402000; A01N-025/34A; A01N-037/18B; A61F-013/00B; A61K-038/00B

Dialog eLink: [USPTO Full Text Retrieval Options](#)

3/3/9 (Item 1 from file: 67)

DIALOG(R)File 67: World Textiles

(c) 2010 Elsevier B.V. All rights reserved.

0001707213 **Supplier Number:** 2014956

Hydratable keratin composition

Trade Journal : Medical Textiles (Med. Text.) , nJULY, (3-4) , 2002 , United Kingdom

Publication Date: August 12, 2002 (20020812)

ISSN: 0266-2078

Publisher: International Newsletters Ltd

Record Type: Abstract; New

Document Type: Article

Manufacturer Name: Keraplast

Languages: English **Summary Languages:** English

Controlled Descriptors:

dressings; human hair; keratin; medical textile

Classification Code and Description:

75 (WORLD TEXTILE ABSTRACTS)

75.50 (PRODUCTS:MANUFACTURE, PROPERTIES, AFTERCARE)

75.50.2 (Medical textiles)

Record History: New; Created: August 12, 2002 (20020812) ; Delivered: May 15, 2008 (20080515)

Dialog Update Date: 20090114; 07:01:41 EST

? t s3/full/all

Dialog eLink:

USPTO Full Text Retrieval Options

3/9/1 (Item 1 from file: 155)

DIALOG(R)File 155: MEDLINE(R)

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14968833 **PMID:** 12235746

Testing keratolytic effect of carbamide in various vehicles.

Toskic-Radojicic Marija

Military Medical Academy, Institute for Pharmacy, Belgrade.

Vojnosanitetski preglad. Military-medical and pharmaceutical review (Yugoslavia)

Jul-Aug 2002 , 59 (4) p393-7 , **ISSN:** 0042-8450--Print **Journal Code:** 21530700R

Publishing Model Print

Document type: In Vitro; Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Subfile: INDEX MEDICUS

BACKGROUND: Urea is a natural protein degradation product widely used in keratolytic preparations due to its property to promote fibrinogen decomposition and to act as a proteolytic agent dissolving and denaturing proteins. Preparations containing 20% or 40% urea in commercial ambiphylic bases are widely used to produce keratolysis.

At such high concentration urea recrystallization occurs and is separated over the preparation mass, particularly if the urea content is 40%. This was the initial reason to look for a new preparation formulation that would not have the above-mentioned technological inadequacy. Considering urea's water solubility and its high content in the preparations, the most convenient form, in which recrystallisation would not occur, was gel. The aim of this work was to experimentally estimate the influence of the vehicle upon the proteolytic effect of urea on keratin in the human hair model. **METHODS:** Hair geometrical properties, the change in longitudinal mass, and the change of disruptive force and disruptive hair elongation were measured. **RESULTS:** The effect of 20% and 40% urea was estimated in three various vehicles, of which two were of organic hydrogel type, and one was an ambiphylic base of mixed type--Basiscreme. **CONCLUSION:** Keratin proteolysis effects of urea incorporated into various bases, as measured by human hair disruption forces, depended upon the base; preparations containing 20% and 40%

urea in Basiscreme (ambiphylic base) had no desired proteolytic effect upon keratin fibers; proteolysis was best expressed by urea preparations in 3.5% NaCMC gel, and proteolytic effect of these preparations was best expressed in the first hour.

Descriptors: *Keratins--drug effects--DE; *Keratolytic Agents--pharmacology--PD; *Urea --pharmacology--PD; *Vehicles--pharmacology--PD ; Hair--drug effects--DE; Hair--metabolism--ME; Humans; Keratins--metabolism --ME

CAS Registry No.: 0 (Keratolytic Agents); 0 (Vehicles); 57-13-6 (Urea); 68238-35-7 (Keratins)

Record Date Created: 20020918

Record Date Completed: 20021009

Dialog eLink:

USPTO Full Text Retrieval Options

3/9/2 (Item 1 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

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17017525 **Biosis No.:** 200200611036

Non-woven keratin cell scaffold

Author: Blanchard Cheryl R; Van Dyke Mark E; Timmons Scott F; Siller-Jackson Arlene J; Smith Robert A

Journal: Official Gazette of the United States Patent and Trademark Office Patents 1263 (2): Oct. 8, 2002 2002

Medium: e-file

Patent Number: US 6461628 **Patent Date Granted:** October 08, 2002 20021008

Patent Classification: 424-402 **Patent Assignee:** Keraplast Technologies, Ltd. **Patent Country:** USA

ISSN: 0098-1133

Document Type: Patent

Record Type: Abstract

Language: English

Abstract: A hydratable, highly absorbent keratin solid fiber or powder capable of absorbing a large weight excess of water may be produced by partially oxidizing hair keratin disulfide bonds to sulfonic acid residues and reacting the sulfonic acid residues with a cation. The neutralized suspension can be filtered, washed, and dried, leaving keratin solid which can be shredded into fibers and further ground into powder. Addition of water to the solid produces a hydrogel. The powder or hydrogel may be useful as an absorbent material, as a therapeutic for skin, or as an excipient. The keratin materials can be incorporated into nonwoven films. The hydrogel may be used as biocompatible viscoelastic filler for implant applications. Both the hydrogel and nonwoven materials are also suitable for use as tissue engineering scaffolds.

DESCRIPTORS:

Major Concepts: Cosmetics; Pharmacology

Chemicals & Biochemicals: keratin cell scaffold--dermatological-drug, non-woven

Concept Codes:

00532 General biology - Miscellaneous

12512 Pathology - Therapy

22002 Pharmacology - General

22020 Pharmacology - Integumentary system, dental and oral biology

Dialog eLink:

USPTO Full Text Retrieval Options

3/9/3 (Item 2 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

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16715061 **Biosis No.:** 200200308572

Keratin-based hydrogel for biomedical applications and method of production

Author: Blanchard Cheryl R (Reprint); Timmons Scott F; Smith Robert A

Author Address: Warsaw, IN, USA**USA

Journal: Official Gazette of the United States Patent and Trademark Office Patents
1257 (5): Apr. 30, 2002 2002

Medium: e-file

Patent Number: US 6379690 **Patent Date Granted:** April 30, 2002 20020430 **Patent**

Classification: 424-422 **Patent Assignee:** Keraplast Technologies, Ltd., Austin, TX,
USA **Patent Country:** USA

ISSN: 0098-1133

Document Type: Patent

Record Type: Abstract

Language: English

Abstract: A keratin hydrogel which can be used as a wound dressing and cell scaffolding. The keratin hydrogel is formed from clean, washed hair by partially oxidizing a significant percentage of disulfide linkages to form cysteic acid groups, while some disulfide linkages remain intact. The partially oxidized hair is treated with a reducing agent, thereby reducing most of the remaining disulfide linkages to cysteine-thioglycollate disulfide and cysteine groups. A soluble fraction of hair is collected and oxidized, such that the reduced sulfur groups are allowed to reform disulfide linkages, thereby binding the keratin together. The cysteic acid groups remain, providing hydrophilic sites within the hydrogel. A higher degree of partial oxidation results in a greater abundance of hydrophilic cysteic acid groups in the hydrogel.

DESCRIPTORS:

Major Concepts: Biomedical Engineering--Allied Medical Sciences; Human Medicine--Medical Sciences; Methods and Techniques

Methods & Equipment: keratin-based hydrogel--cell scaffold, prosthetic, wound dressing; keratin-based hydrogel production--production method

Concept Codes:

10511 Biophysics - Bioengineering
12502 Pathology - General

Dialog eLink: 

3/9/4 (Item 3 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

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16632214 **Biosis No.:** 200200225725

Water absorbent keratin and gel formed therefrom

Author: Van Dyke Mark E; Blanchard Cheryl R; Timmons Scott F; Siller-Jackson Arlene J; Smith Robert A

Journal: Official Gazette of the United States Patent and Trademark Office Patents 1252 (2): Nov. 13, 2001 2001

Medium: e-file

Patent Number: US 6316598 **Patent Date Granted:** November 13, 2001 20011113

Patent Classification: 530-357 **Patent Assignee:** Keraplast Technologies, Ltd. **Patent Country:** USA

ISSN: 0098-1133

Document Type: Patent

Record Type: Abstract

Language: English

Abstract: A hydratable, highly absorbent keratin solid fiber or powder capable of absorbing a large weight excess of water may be produced by partially oxidizing hair keratin disulfide bonds to sulfonic acid residues and reacting the sulfonic acid residues with a cation. The neutralized suspension can be filtered, washed, and dried, leaving keratin solid which can be shredded into fibers and further ground into powder. Addition of water to the solid produces a hydrogel. The powder or hydrogel may be useful as an absorbent material, as a therapeutic for skin, or as an excipient. Another use for the hydrogel is as a biocompatible viscoelastic filler for implant applications.

Registry Numbers: 169799-44-4: keratin

DESCRIPTORS:

Major Concepts: Equipment, Apparatus, Devices and Instrumentation; Methods and Techniques

Chemicals & Biochemicals: keratin--water absorbent

Methods & Equipment: keratin gel--medical supplies, water absorbent; keratin gel preparation-- processing method; keratin preparation--processing method

Concept Codes:

10064 Biochemistry studies - Proteins, peptides and amino acids

Dialog eLink: [USPTO Full Text Retrieval Options](#)

3/9/5 (Item 4 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

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16309791 **Biosis No.:** 200100481630

Nonwoven sheet and film containing water absorbent keratin

Author: Van Dyke Mark E; Timmons Scott F; Blanchard Cheryl R; Siller-Jackson Arlene J; Smith Robert A

Journal: Official Gazette of the United States Patent and Trademark Office Patents 1249 (2): Aug. 14, 2001 2001

Medium: e-file

Patent Number: US 6274155 **Patent Date Granted:** August 14, 2001 20010814

Patent Classification: 424-402 **Patent Assignee:** Keraplast Technologies, Ltd. **Patent Country:** USA

ISSN: 0098-1133

Document Type: Patent

Record Type: Abstract

Language: English

Abstract: A hydratable, highly absorbent keratin solid fiber or powder capable of absorbing a large weight excess of water may be produced by partially oxidizing hair keratin disulfide bonds to sulfonic acid residues and reacting the sulfonic acid residues with a cation. The neutralized suspension can be filtered, washed, and dried, leaving keratin solid which can be shredded into fibers and further ground into powder. Addition of water to the solid produces a hydrogel. The powder or hydrogel may be useful as an absorbent material, as a therapeutic for skin, or as an excipient. The keratin materials can be incorporated into nonwoven films. Another use for the hydrogel is as a biocompatible viscoelastic filler for implant applications.

Registry Numbers: 169799-44-4: keratin

DESCRIPTORS:

Major Concepts: Biochemistry and Molecular Biophysics; Equipment, Apparatus, Devices and Instrumentation

Chemicals & Biochemicals: keratin--hydratable, powder, solid fiber, water absorbent

Methods & Equipment: film--equipment, keratin-containing; nonwoven sheet--equipment, keratin-containing

Concept Codes:

00532 General biology - Miscellaneous

Dialog eLink: [USPTO Full Text Retrieval Options](#)

3/9/6 (Item 5 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

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16284032 **Biosis No.:** 200100455871

Absorbent keratin wound dressing

Author: Van Dyke Mark E; Timmons Scott F; Blanchard Cheryl R; Siller-Jackson Arlene J; Smith Robert A

Journal: Official Gazette of the United States Patent and Trademark Office Patents 1249 (1): Aug. 7, 2001 2001

Medium: e-file

Patent Number: US 6270793 **Patent Date Granted:** August 07, 2001 20010807

Patent Classification: 424-443 **Patent Assignee:** Keraplast Technologies, Ltd. **Patent Country:** USA

ISSN: 0098-1133

Document Type: Patent

Record Type: Abstract

Language: English

Abstract: A hydratable, highly absorbent keratin solid fiber or powder capable of absorbing a large weight excess of water may be produced by partially oxidizing hair keratin disulfide bonds to sulfonic acid residues and reacting the sulfonic acid residues with a cation. The neutralized suspension can be filtered, washed, and dried, leaving keratin solid which can be shredded into fibers and further ground into powder. Addition of water to the solid produces a hydrogel. The powder or hydrogel may be useful as an absorbent material, as a therapeutic for skin, or as an excipient. The keratin materials can be incorporated into nonwoven films. Another use for the hydrogel is as a biocompatible viscoelastic filler for implant applications.

DESCRIPTORS:

Major Concepts: Equipment, Apparatus, Devices and Instrumentation; Human Medicine--Medical Sciences

Methods & Equipment: absorbent keratin wound dressing--medical equipment

Concept Codes:

00532 General biology - Miscellaneous

Dialog eLink:

USPTO Full Text Retrieval Options

3/9/7 (Item 1 from file: 399)

DIALOG(R)File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rights reserved.

138292670 **CA:** 138(19)292670z **JOURNAL**

Human hair keratins: structural biomolecules for use in biomaterials development

Author: Van Dyke, Mark E.

Location: Materials Engineering Department, Southwest Research Institute, San Antonio , TX, 78238-5166, USA

Journal: Polym. Prepr. (Am. Chem. Soc., Div. Polym. Chem.)

Date: 2002

Volume: 43 **Number:** 2 **Pages:** 701-702

CODEN: ACPPAY

Media Type: computer optical disk

ISSN: 0032-3934

Language: English

Publisher: American Chemical Society, Division of Polymer Chemistry

Section:

CA263007 Pharmaceuticals

Identifiers: keratin human hair hydrogel biomaterial

Descriptors:

Keratins... Hydrogels... Viscoelasticity... Stability... Drug delivery systems... Wound healing... Prosthetic materials and Prosthetics... Human ... Crosslinking ...

human hair keratins for biomaterials development

CAS Registry Numbers:

9072-62-2 human hair keratins for biomaterials development

Dialog eLink:

USPTO Full Text Retrieval Options

3/9/8 (Item 2 from file: 399)

DIALOG(R)File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rights reserved.

137284418 **CA:** 137(19)284418n **PATENT**

Manufacture of nonwoven keratin cell scaffold and its use

Inventor (Author): Blanchard, Cheryl R.; Van Dyke, Mark E.; Timmons, Scott F.; Siller-Jackson, Arlene J.; Smith, Robert A.

Location: USA

Assignee: Keraplast Technologies, Ltd.

Patent: United States ; US 6461628 B1 **Date:** 20021008

Application: US 587157 (20000605) *US 394782 (19990913) *US 512918 (20000225) *US 528893 (20000320)

Pages: 30 pp., Cont.-in-part of U.S. 6,270,793.

CODEN: USXXAM

Language: English

Patent Classifications:

Class: 424402000; A01N-025/34A; A01N-037/18B; A61F-013/00B; A61K-038/00B

Section:

CA263007 Pharmaceuticals

CA240XXX TEXTILES AND FIBERS

CA245XXX Industrial Organic Chemicals, Leather, Fats, and Waxes

Identifiers: oxidized hair keratin absorbent hydrogel skin tissue engineering scaffold, nonwoven fiber filler film absorbent biocompatible keratin absorbent

Descriptors:

Polyamide fibers,biological studies... Polyester fibers,biological studies ...
fabrics, nonwoven, nonwoven; manuf. of nonwoven keratin cell scaffold and use
Liver ...
hepatocyte; manuf. of nonwoven keratin cell scaffold and use
Body,anatomical ...
horn; manuf. of nonwoven keratin cell scaffold and use
Hair ...
human; manuf. of nonwoven keratin cell scaffold and use
Albumins,biological studies ...
hydrogel with keratins; manuf. of nonwoven keratin cell scaffold and use
Skin ...
keratinocyte; manuf. of nonwoven keratin cell scaffold and use
Absorbents... Keratins... Prosthetic materials and Prosthetics... Nonwoven fabrics...
Films... Fillers... Drug delivery systems... Polyolefin fibers ... Fur... Skin...
Nail(anatomical)... Hoof... Chondrocyte... Fibroblast... Osteoblast ...
manuf. of nonwoven keratin cell scaffold and use
Nerve ...
neuron; manuf. of nonwoven keratin cell scaffold and use
Polyurethane fibers... Acetate fibers,biological studies ...
nonwoven; manuf. of nonwoven keratin cell scaffold and use
Spleen ...
splenocyte; manuf. of nonwoven keratin cell scaffold and use
Peptides,biological studies ...
therapeutic agents; manuf. of nonwoven keratin cell scaffold and use
CAS Registry Numbers:
17341-25-2 24203-36-9 biological studies, manuf. of nonwoven keratin cell scaffold and
use
14838-15-4 manuf. of nonwoven keratin cell scaffold and use

Dialog eLink:

ISPTO Full Text Retrieval Options

3/9/9 (Item 1 from file: 67)

DIALOG(R)File 67: World Textiles

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0001707213 **Supplier Number:** 2014956

Hydratable keratin composition

Trade Journal : Medical Textiles (Med. Text.) , nJULY, (3-4) , 2002 , United Kingdom

Publication Date: August 12, 2002 (20020812)

ISSN: 0266-2078

Publisher: International Newsletters Ltd

Record Type: Abstract; New

Document Type: Article

Manufacturer Name: Keraplast

Languages: English **Summary Languages:** English

Keraplast Technologies has developed a hydratable, highly absorbent keratin composition that forms a hydrogel upon addition of water. The company of San Antonio, Texas, USA, says this makes it suitable for use in absorbent disposable products and wound dressings. The hydratable keratin is produced by partially oxidizing disulphide bonds of human hair keratin to sulphonic acid residues, which are reacted with a cation. The neutralized suspension is then filtered, washed and dried, leaving keratin solid, which can be shredded into fibres or further ground into a powder.

Controlled Descriptors:

dressings; human hair; keratin; medical textile

Classification Code and Description:

75 (WORLD TEXTILE ABSTRACTS)

75.50 (PRODUCTS:MANUFACTURE, PROPERTIES, AFTERCARE)

75.50.2 (Medical textiles)

Record History: New; Created: August 12, 2002 (20020812) ; Delivered: May 15, 2008 (20080515)

Dialog Update Date: 20090114; 07:01:41 EST

? s s3 and (polyvinyl)

```
          9  S3
    263895  POLYVINYL
S4          0  S3 AND (POLYVINYL)
```

? s s3 and polymer

```
          9  S3
    3203319 POLYMER
S5          0  S3 AND POLYMER
```

? s (hydrogel) and keratin and polyvinyl

```
    104942  HYDROGEL
    104276  KERATIN
    263895  POLYVINYL
S6          10  (HYDROGEL) AND KERATIN AND POLYVINYL
```

? rd

```
S7          3  RD  (unique items)
```

? t s3/medium/all

Dialog eLink:

HSPTO Full Text Retrieval Options

3/3/1 (Item 1 from file: 155)

DIALOG(R)File 155: MEDLINE(R)

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14968833 **PMID:** 12235746

Testing keratolytic effect of carbamide in various vehicles.

Toskic-Radojicic Marija

Military Medical Academy, Institute for Pharmacy, Belgrade.

Vojnosanitetski pregled. Military-medical and pharmaceutical review (Yugoslavia)

Jul-Aug 2002 , 59 (4) p393-7 , **ISSN:** 0042-8450--Print **Journal Code:** 21530700R

Publishing Model Print

Document type: In Vitro; Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Dialog eLink:

USPTO Full Text Retrieval Options

3/3/2 (Item 1 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

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17017525 **Biosis No.:** 200200611036

Non-woven keratin cell scaffold

Author: Blanchard Cheryl R; Van Dyke Mark E; Timmons Scott F; Siller-Jackson Arlene J; Smith Robert A

Journal: Official Gazette of the United States Patent and Trademark Office Patents 1263 (2): Oct. 8, 2002 2002

Medium: e-file

Patent Number: US 6461628 **Patent Date Granted:** October 08, 2002 20021008

Patent Classification: 424-402 **Patent Assignee:** Keraplast Technologies, Ltd. **Patent Country:** USA

ISSN: 0098-1133

Document Type: Patent

Record Type: Abstract

Language: English

Dialog eLink:

USPTO Full Text Retrieval Options

3/3/3 (Item 2 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

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16715061 **Biosis No.:** 200200308572

Keratin-based hydrogel for biomedical applications and method of production

Author: Blanchard Cheryl R (Reprint); Timmons Scott F; Smith Robert A
Author Address: Warsaw, IN, USA**USA
Journal: Official Gazette of the United States Patent and Trademark Office Patents
1257 (5): Apr. 30, 2002 2002
Medium: e-file
Patent Number: US 6379690 **Patent Date Granted:** April 30, 2002 20020430 **Patent**
Classification: 424-422 **Patent Assignee:** Keraplast Technologies, Ltd., Austin, TX,
USA **Patent Country:** USA
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English

Dialog eLink: [USPTO Full Text Retrieval Options](#)
3/3/4 (Item 3 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)
(c) 2010 The Thomson Corporation. All rights reserved.

16632214 **Biosis No.:** 200200225725
Water absorbent keratin and gel formed therefrom

Author: Van Dyke Mark E; Blanchard Cheryl R; Timmons Scott F; Siller-Jackson
Arlene J; Smith Robert A
Journal: Official Gazette of the United States Patent and Trademark Office Patents
1252 (2): Nov. 13, 2001 2001
Medium: e-file
Patent Number: US 6316598 **Patent Date Granted:** November 13, 2001 20011113
Patent Classification: 530-357 **Patent Assignee:** Keraplast Technologies, Ltd. **Patent**
Country: USA
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English

Dialog eLink: [USPTO Full Text Retrieval Options](#)
3/3/5 (Item 4 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)
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16309791 **Biosis No.:** 200100481630
Nonwoven sheet and film containing water absorbent keratin

Author: Van Dyke Mark E; Timmons Scott F; Blanchard Cheryl R; Siller-Jackson
Arlene J; Smith Robert A

Journal: Official Gazette of the United States Patent and Trademark Office Patents
1249 (2): Aug. 14, 2001 2001
Medium: e-file
Patent Number: US 6274155 **Patent Date Granted:** August 14, 2001 20010814
Patent Classification: 424-402 **Patent Assignee:** Keraplast Technologies, Ltd. **Patent Country:** USA
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English

Dialog eLink: [USPTO Full Text Retrieval Options](#)

3/3/6 (Item 5 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)
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16284032 **Biosis No.:** 200100455871
Absorbent keratin wound dressing

Author: Van Dyke Mark E; Timmons Scott F; Blanchard Cheryl R; Siller-Jackson Arlene J; Smith Robert A
Journal: Official Gazette of the United States Patent and Trademark Office Patents
1249 (1): Aug. 7, 2001 2001
Medium: e-file
Patent Number: US 6270793 **Patent Date Granted:** August 07, 2001 20010807
Patent Classification: 424-443 **Patent Assignee:** Keraplast Technologies, Ltd. **Patent Country:** USA
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English

Dialog eLink: [USPTO Full Text Retrieval Options](#)

3/3/7 (Item 1 from file: 399)
DIALOG(R)File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rights reserved.

138292670 **CA:** 138(19)292670z **JOURNAL**
Human hair keratins: structural biomolecules for use in biomaterials development
Author: Van Dyke, Mark E.
Location: Materials Engineering Department, Southwest Research Institute, San Antonio , TX, 78238-5166, USA
Journal: Polym. Prepr. (Am. Chem. Soc., Div. Polym. Chem.)

Date: 2002
Volume: 43 **Number:** 2 **Pages:** 701-702
CODEN: ACPPAY
Media Type: computer optical disk
ISSN: 0032-3934
Language: English
Publisher: American Chemical Society, Division of Polymer Chemistry

Dialog eLink:

USPTO Full Text Retrieval Options

3/3/8 (Item 2 from file: 399)

DIALOG(R)File 399: CA SEARCH(R)

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137284418 **CA:** 137(19)284418n **PATENT**

Manufacture of nonwoven keratin cell scaffold and its use

Inventor (Author): Blanchard, Cheryl R.; Van Dyke, Mark E.; Timmons, Scott F.; Siller-Jackson, Arlene J.; Smith, Robert A.

Location: USA

Assignee: Keraplast Technologies, Ltd.

Patent: United States ; US 6461628 B1 **Date:** 20021008

Application: US 587157 (20000605) *US 394782 (19990913) *US 512918 (20000225)
*US 528893 (20000320)

Pages: 30 pp., Cont.-in-part of U.S. 6,270,793.

CODEN: USXXAM

Language: English

Patent Classifications:

Class: 424402000; A01N-025/34A; A01N-037/18B; A61F-013/00B; A61K-038/00B

Dialog eLink:

USPTO Full Text Retrieval Options

3/3/9 (Item 1 from file: 67)

DIALOG(R)File 67: World Textiles

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0001707213 **Supplier Number:** 2014956

Hydratable keratin composition

Trade Journal : Medical Textiles (Med. Text.) , nJULY, (3-4) , 2002 , United Kingdom

Publication Date: August 12, 2002 (20020812)

ISSN: 0266-2078

Publisher: International Newsletters Ltd

Record Type: Abstract; New

Document Type: Article

Manufacturer Name: Keraplast

Languages: English **Summary Languages:** English

Controlled Descriptors:

dressings; human hair; keratin; medical textile

Classification Code and Description:

75 (WORLD TEXTILE ABSTRACTS)

75.50 (PRODUCTS:MANUFACTURE, PROPERTIES, AFTERCARE)

75.50.2 (Medical textiles)

Record History: New; Created: August 12, 2002 (20020812) ; Delivered: May 15, 2008 (20080515)

Dialog Update Date: 20090114; 07:01:41 EST

? ds

Set	Items	Description
S1	64	(KERATIN) (N30) (HYDROGEL)
S2	30	RD (unique items)
S3	9	S2 AND PY<2003
S4	0	S3 AND (POLYVINYL)
S5	0	S3 AND POLYMER
S6	10	(HYDROGEL) AND KERATIN AND POLYVINYL
S7	3	RD (unique items)

? t s7/full/all

Dialog eLink:

USPTO Full Text Retrieval Options

7/9/1 (Item 1 from file: 155)

DIALOG(R)File 155: MEDLINE(R)

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17748580 **PMID:** 16924609

Amniotic membrane immobilized poly(vinyl alcohol) hybrid polymer as an artificial cornea scaffold that supports a stratified and differentiated corneal epithelium.

Uchino Yuichi; Shimmura Shigeto; Miyashita Hideyuki; Taguchi Tetsushi; Kobayashi Hisatoshi; Shimazaki Jun; Tanaka Junzo; Tsubota Kazuo

Department of Ophthalmology, Tokyo Dental College, Chiba, Japan.

Journal of biomedical materials research. Part B, Applied biomaterials (United States)

Apr 2007 , 81 (1) p201-6 , **ISSN:** 1552-4973--Print **Journal Code:** 101234238

Publishing Model Print

Document type: Journal Article; Research Support, Non-U.S. Gov't

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Subfile: INDEX MEDICUS

Poly(vinyl alcohol) (PVA) is a biocompatible, transparent hydrogel with physical strength that makes it promising as a material for an artificial cornea. In our previous

study, type I collagen was immobilized onto PVA (PVA-COL) as a possible artificial cornea scaffold that can sustain a functional corneal epithelium. The cellular adhesiveness of PVA in vitro was improved by collagen immobilization; however, stable epithelialization was not achieved in vivo. To improve epithelialization in vivo, we created an amniotic membrane (AM)-immobilized polyvinyl alcohol hydrogel (PVA-AM) for use as an artificial cornea material. AM was attached to PVA-COL using a tissue adhesive consisting of collagen and citric acid derivative (CAD) as a crosslinker. Rabbit corneal epithelial cells were air-lift cultured with 3T3 feeder fibroblasts to form a stratified epithelial layer on PVA-AM. The rabbit corneal epithelial cells formed 3-5 layers of keratin-3-positive epithelium on PVA-AM. Occludin-positive cells were observed lining the superficial epithelium, the gap-junctional protein connexin43-positive cells was localized to the cell membrane of the basal epithelium, while both collagen IV were observed in the basement membrane. Epithelialization over implanted PVA-AM was complete within 2 weeks, with little inflammation or opacification of the hydrogel. Corneal epithelialization on PVA-AM in rabbit corneas improved over PVA-COL, suggesting the possibility of using PVA-AM as a biocompatible hybrid material for keratoprosthesis. (c) 2006 Wiley Periodicals, Inc.

Descriptors: *Amnion--chemistry--CH; *Biocompatible Materials--pharmacology--PD; *Cornea --drug effects--DE; *Polyvinyl Alcohol--pharmacology--PD; *Prostheses and Implants ; 3T3 Cells; Animals; Biocompatible Materials--chemistry--CH; Cell Differentiation; Cells, Cultured; Collagen--chemistry--CH; Collagen Type IV --analysis--AN; Connexin 43--analysis--AN; Cornea--chemistry--CH; Cornea --cytology--CY; Epithelium--chemistry--CH; Epithelium--drug effects--DE; Keratin-3--analysis--AN; Membrane Proteins--analysis--AN; Mice; Polymers --chemistry--CH; Polyvinyl Alcohol--chemistry--CH; Rabbits

CAS Registry No.: 0 (Biocompatible Materials); 0 (Collagen Type IV); 0 (Connexin 43); 0 (Keratin-3); 0 (Membrane Proteins); 0 (Polymers); 0 (occludin); 9002-89-5 (Polyvinyl Alcohol); 9007-34-5 (Collagen)

Record Date Created: 20070307

Record Date Completed: 20070604

Dialog eLink: 

7/9/2 (Item 1 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

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18711428 **Biosis No.:** 200600056823

Amniotic membrane- poly (vinyl alcohol) hybrid polymer as an artificial cornea scaffold

Author: Uchino Y (Reprint); Miyashita H; Shimmura S; Kobayashi H; Shimazaki J; Tsubota K

Journal: IOVS 46 (Suppl. S): p 4986 2005 2005

Conference/Meeting: Annual Meeting of the Association-for-Research-in-Vision-and-Ophthalmology Ft Lauderdale, FL, USA May 01 -05, 2005; 20050501

Sponsor: Assoc Res Vis & Ophthalmol
ISSN: 0146-0404
Document Type: Meeting; Meeting Poster
Record Type: Abstract
Language: English

Abstract: Purpose: To investigate the biocompatibility of an amniotic membrane-immobilized polyvinyl alcohol (AM-i-PVA) hydrogel for use as an artificial cornea material. Methods: Rabbit limbal epithelial cells were air-lift cultured on AM-i-PVA discs with mitomycin-treated 3T3 feeder cells for 1 week. Differentiation of the epithelium and basement membrane formation were examined by immunohistochemistry for K3 (AE5), occludin, collagen IV and collagen VII. In an animal study, a 6 mm diameter AM-i-PVA disc was implanted into stromal pockets of Japanese white rabbits (n=12). An epithelial window (3 mm) was created over the implanted AM-i-PVA to allow epithelialization. The rabbits were followed for 1 month by slit lamp photography, followed by histological examination with HE stains. Results: Rabbit limbal cells formed 3 to 5 layers of keratin-3-positive epithelium on AM-i-PVA. Occludin (+) cells were observed lining the superficial epithelium, while both collagen IV and VII were observed in the basement membrane. Epithelialization over implanted AM-i-PVA was complete within 2 weeks, with little inflammation or opacification of the hydrogel. Conclusions: AM-i-PVA supports a fully stratified, differentiated epithelium in vitro, and allows epithelial migration when transplanted in vivo.

DESCRIPTORS:

Major Concepts: Sense Organs--Sensory Reception

Biosystematic Names: Leporidae--Lagomorpha, Mammalia, Vertebrata, Chordata, Animalia

Organisms: Japanese white rabbit (Leporidae)

Organisms: Parts Etc: cornea--sensory system; amniotic membrane--embryonic structure; limbal epithelial cell--sensory system

Common Taxonomic Terms: Animals; Chordates; Lagomorphs; Mammals; Nonhuman Vertebrates; Nonhuman Mammals; Vertebrates

Chemicals & Biochemicals: collagen IV--expression; occludin--expression; collagen VII--expression; K3 --expression

Methods & Equipment: amniotic membrane-immobilized polyvinyl alcohol hydrogel--prosthetic

Concept Codes:

00520 General biology - Symposia, transactions and proceedings

20004 Sense organs - Physiology and biochemistry

25502 Development and Embryology - General and descriptive

Biosystematic Codes:

86040 Leporidae

Dialog eLink: [USPTO Full Text Retrieval Options](#)

7/9/3 (Item 1 from file: 323)

00677415

Title: CONTRIBUTION OF MACROMOLECULES TO THE DESIGN AND DEVELOPMENT OF SYSTEMS FOR THE CONTROLLED AND TARGETED DELIVERY OF DRUGS

Author: Parejo C; Ortiz C; Serradilla C; Vazquez B; Gallardo A; San Roman J

Corporate Source: Instituto de Ciencia y Tecnologia de Polimeros

Source: Revista de Plasticos Modernos ; 72, No.482, Aug.1996, p.141-54

ISSN: 0034-8708

CODEN: RPMOAM **Journal Announcement:** 199807 **RAPRA Update:** 199812

Document Type: Journal Article

Language: Spanish

Subfile: (R) RAPRA

Abstract: The use of various polymers in systems for controlled and targeted drug delivery is examined. Factors influencing the release of drugs on the basis of diffusion in a hydrated medium or after hydrolytic cleavage of the drug from a polymeric matrix are discussed. 66 refs.

Subject Heading (RAPRA): PHARMACEUTICAL APPLICATIONS, plastics, controlled release; CONTROLLED RELEASE, plastics, pharmaceutical applications, drug delivery; DRUG DELIVERY, controlled release, plastics; DRUG RELEASE, plastics

Identifiers (Non-Polymer Terms): ALBUMIN; ENZYME; KERATIN

Geographic Location: EUROPEAN COMMUNITY; EUROPEAN UNION; SPAIN; WESTERN EUROPE

Descriptors: ABSORPTION; ACRYLAMIDE POLYMER; ACRYLATE POLYMER; ACRYLIC ACID POLYMER; ACRYLIC ESTER POLYMER; ADHESIVE; AMINO ACID POLYMER; ANHYDRIDE POLYMER; APPLICATION; BIOCOMPATIBILITY; BIOCOMPATIBLE; BIODEGRADATION; BIODETERIORATION; BIOMATERIAL; BIOMEDICAL APPLICATION; BIOPOLYMER; BIOSTABILITY; CAPSULE; CARBONATE POLYMER; CELLULOSE; CHEMICAL MODIFICATION; CHEMICAL STRUCTURE; COLLAGEN; CONTROLLED-RELEASE; CROSSLINKING; CRYSTALLINITY; CYANOACRYLATE POLYMER; DATA; DEGRADATION; DEGRADATION RATE; DEXTRAN; DIALYSIS; DIFFUSION; DIMETHYL ACRYLAMIDE POLYMER; DRUG; DRUG ADMINISTRATION; DRUG DELIVERY; DRUG RELEASE; ENCAPSULATION; ENZYMATIC DEGRADATION; EROSION; ETHER POLYMER; FIBRE; FUNCTIONAL GROUP; GEL; GELS; GLASS TRANSITION TEMPERATURE; GRAPH; HEALTH HAZARD; HOLLOW FIBER; HOLLOW FIBRE; HYDRATION; HYDROGEL; HYDROLYSIS; HYDROPHILIC; HYDROPHILICITY; HYDROPHOBIC; HYDROPHOBICITY; HYDROXYETHYL METHACRYLATE POLYMER; IMMOBILISATION; IMMOBILIZATION; IMPLANT; IN-VITRO; IN-VIVO; INSTITUTION; KINETIC; LACTONE POLYMER; LYSINE POLYMER; MECHANICAL PROPERTIES; MEDICAL APPLICATION;

METHACRYLIC ACID POLYMER; MICROCAPSULE; MICROFIBER;
MICROFIBRE ; MICROSPHERE; MODEL; MOLEC.WT.; MOLECULAR MASS;
MOLECULAR STRUCTURE; MOLECULAR WEIGHT; NATURAL POLYMER;
OLIGOMER; ORTHOESTER POLYMER; OSMOTIC PRESSURE; OXIDATION;
OXIDATIVE DEGRADATION; PERMEABILITY; PHARMACEUTICAL
APPLICATION; PHOSPHAZENE POLYMER; PLASTIC; POLYACETAL;
POLYACRYLAMIDE; POLYACRYLATE; POLYACRYLIC ACID;
POLYALKANOATE; POLYAMINO ACID; POLYANHYDRIDE;
POLYCARBONATE; POLYCYANOACRYLATE; POLYDIMETHYL
ACRYLAMIDE; POLYETHER; POLYGLUTAMIC ACID; POLYGLYCOLIC ACID;
POLYHYDROXY ACID; POLYHYDROXYETHYL METHACRYLATE;
POLYLACTIC ACID; POLYLACTONE; POLYLYSINE; POLYMERIC DRUG;
POLYMERIC SUPPORT; POLYMETHACRYLIC ACID; POLYNUCLEOTIDE;
POLYORTHOESTER; POLYPEPTIDE; POLYPHOSPHAZENE;
POLYSACCHARIDE; POLYVINYL ALCOHOL; POLYVINYL PYRROLIDONE;
POLYVINYLPIRROLIDONE; PROPERTIES; PROTEIN; PVAL; REACTIVITY;
RELEASE RATE; SATURATED POLYESTER; SOLUBILITY; SPACER; SPHERE;
SWELLING; TABLES; TECHNICAL; TG; THERMAL PROPERTIES;
THERMOPLASTIC; TOXICITY; WATER SOLUBILITY
RAPRA Classification Code: 6M3; 6S(13)
Category Codes: QQ; QM

?